

## OJIBWAY PLANT TAXONOMY AT LAC SEUL FIRST NATION, ONTARIO, CANADA

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**ABSTRACT.**—Ojibway (Anishinaabe) Elders of Lac Seul First Nation who are fluent in the Oji-Cree dialect and knowledgeable about plant names were interviewed. They provided names of 38 plant taxa, with some synonyms. The study also identified 65 Oji-Cree plant-related phrases, nouns, suffixes, and prefixes. There is no word for 'unique beginner' that corresponds with the plant kingdom. Plant classification at Lac Seul is based on gross morphology, but also reflects traditional utilization of the plants. The Lac Seul people do have names for two overlapping all-inclusive categories representing trees and all deciduous plants. There are five named and covert life-form taxa that are clearly morphologically defined: 'conifer' (covert), 'angiosperm tree' (covert), 'shrub', 'herb, fern or fern ally' and 'moss'. Two additional plant groupings, 'medicinal root' and 'berry', reflect cultural utility and overlap with the five principal life forms. Although unnamed, one additional grouping, 'bark plants', was identified that is also based on cultural utility. It was found that the names of certain ubiquitous species are the same in Lac Seul Oji-Cree and in other Algonquian languages ranging from northern Saskatchewan to western Quebec.

**Key words:** ethnobotany, folk taxonomy, Ojibway, Anishinaabe, boreal forest.

**RESUMEN.**—Se entrevistó a varios ancianos Ojibway (Anishinaabe) de la etnia indígena Lac Seul, que hablan con fluidez el dialecto Oji-Cree y son buenos conocedores de los nombres de las plantas. Ellos facilitaron los nombres de 38 táxones vegetales, con algunos sinónimos. El estudio identificó además 65 dichos, nombres, sufijos y prefijos relativos a las plantas en Oji-Cree. No hay ninguna palabra que corresponda al 'reino vegetal'. La clasificación vegetal entre los Lac Seul se basa en la morfología general, pero también refleja la utilidad tradicional de las plantas. Las gentes Lac Seul tienen nombres para dos categorías superpuestas que incluyen todos los elementos dentro de 'árboles' y 'plantas de hoja caduca'. Hay cinco táxones de biotipos bien definidos morfológicamente; algunos se nombran y otros no: 'conífera' (no nombrado), 'angiosperma arbórea' (no nombrado), 'arbusto', 'herba, helecho o similar' y 'musgo'. Dos grupos adicionales de plantas, 'raíz medicinal' y 'frutillo silvestre,' reflejan una utilidad cultural y se superponen a los cinco biotipos principales. Existe además una agrupación adicional, no nombrada, de las 'plantas que producen corteza', basada también en utilidad cultural. Se constató que los nombres de ciertas especies ubicuas son iguales en Oji-Cree de Lac Seul y en otras lenguas Algonquian extendidas desde el norte de Saskatchewan al oeste de Quebec.

**RÉSUMÉ.**—Les aînés ojibwés (Anishinaabe) de la Première Nation Lac-Seul qui parlaient couramment le dialecte oji-cri et qui connaissaient bien les noms des plantes ont été interviewés. Ils nous ont communiqué 38 noms de plantes, ainsi



que quelques synonymes. Cette étude a également permis de déterminer 65 phrases, noms, suffixes et préfixes ojibwés liés aux plantes. Il n'existe aucun terme pour «royaume populaire» correspondant au règne végétal. Au Lac-Seul, la classification végétale est fondée sur la morphologie grossière; elle est également le reflet de l'utilisation traditionnelle des plantes. Les habitants de Lac-Seul possèdent des noms pour deux grandes catégories inclusives qui se chevauchent, dont l'une représente les arbres, l'autre englobe toutes les plantes à feuillage décidu. Il existe cinq taxons ayant des noms oji-cris et qui portent sur des formes de vie cachées. Ils sont clairement définis sur le plan morphologique: «conifère» (caché), «arbre angiospermien» (caché), «buisson», «herbacée», «fougère» ou «plante affine» et «mousse». «Baie» et «plantes médicinales» forment deux autres groupes de plantes. Ces groupes sont fondés sur l'utilisation culturelle et chevauchent les cinq principales formes de vie. Quoique ne portant pas de nom, un groupe additionnel a pu être identifié qui correspond aux «plantes à écorce». Il s'agit aussi d'un groupe fondé sur les utilisations culturelles. Finalement, il ressort de cette étude que le nom de certaines espèces ubiquistes ne diffère pas entre le dialecte de la communauté du Lac-Seul et celui des autres groupes algonquiens dispersés entre le nord de Saskatchewan et l'ouest du Québec.

## INTRODUCTION

This study focuses on folk plant classification of the Oji-Cree speaking Ojibway (Anishinaabe) people in northwestern Ontario at Lac Seul First Nation, Lac Seul, Ontario, Canada. While considerable information regarding Ojibway and Cree plant names is known (Densmore 1928; Leighton 1985; Meeker et al. 1993; Smith 1932), there has been no study of the plant classification system of the Anishinaabe in northwestern Ontario. The purposes of this preliminary and modestly funded study were to document plant names and plant category terms in the Oji-Cree language at Lac Seul First Nation in northwestern Ontario, Canada; to determine how the plants are classified; and to compare the Lac Seul plant nomenclature with other nonagrarian North American Algonquian folk systems. Only a small percentage of the on-reserve population retains the Oji-Cree language. Most of these people are Elders over 60 years old.

*Geographic Setting and Vegetation.*—Lac Seul First Nation is situated on the south shore of Lac Seul at approximately 50°09' north latitude and 92°12' west longitude. The total land area is inexact due to fluctuating water levels from the dam at Ear Falls, Ontario, but it is estimated to be 27,287 ha (67,375 acres).

Lac Seul lies within the Upper English River section of the boreal forest region (Rowe 1972). This area represents a transition zone between the Great Lakes-Saint Lawrence forest to the south and the boreal forest to the north. The vegetational regimes at Lac Seul show typical boreal diversity due to a continuum of patch disturbances by fire, blowdown, and insect infestation. In addition, human activity has created long-term modifications in the forest. To this day people create habitation sites, trails, and portages.

*The Ojibway (Anishinaabe) of Lac Seul.*—From archaeological remains, it is known that aboriginal people have occupied the region of Lac Seul and the English River watershed for about 9000 years (Dawson 1983). Anishinaabe people resided on



Lac Seul when the first European fur traders came into the waterways. The language spoken at Lac Seul is a dialect of Oji-Cree, a blend of two Algonquian languages.

From precontact times to first contact with European traders in the 1750s and well into the latter half of the twentieth century the Lac Seul Anishinabe have maintained a fishing, hunting, and gathering culture of the Boreal and Great Lakes-St. Lawrence ecosystems. This transition zone was rich and varied in food resources before Lac Seul was flooded to create a reservoir by a joint agreement between Canada and the United States (first in the early 1930s and again in the 1950s). The once extensive wetlands supported wild rice beds and high waterfowl populations, extensive fish spawning grounds, muskrat and beaver habitat, and they supported many wetland plants used for food and medicine.

### MATERIALS AND METHODS

Knowledge of many of the Oji-Cree names for plants and their uses persists only among a few older residents at Lac Seul. Interviews were conducted sporadically from 1997 to 1999 with Elders known for their knowledge of the local plants. Plant identification was based on pressed or fresh specimens presented to the respondents.<sup>1</sup> Questions were presented in Oji-Cree with the help of a translator who was a resident of the community. In addition to the traditional names of specific plants and plant groups, respondents were asked about traditional economic uses and the relationships of plants to each other. Details of the plant collection and interview process are presented in Kenny (2000).

Berlin's (1992) modified Venn diagrams are used to present the plant classification at different hierarchical levels. All ethnobotanical taxa are represented by gray circles and labeled in bold italics. Botanical taxa are represented by black circles, usually at the genus or species level, and labeled in italics. Hierarchical relationships are shown by nesting the circles representing taxa. Where taxa are interpreted to converge (i.e., they are not mutually exclusive), the circles overlap. Where taxa are covert (unnamed), the circle is a dashed line.

### RESULTS

As has been found in other folk taxonomies, there apparently is no all-encompassing word for 'plant' at Lac Seul; the covert kingdom *Plantae* is inferred from descriptive vocabulary (Berlin 1992). This study identified a total of 65 Oji-Cree plant-related phrases, nouns, suffixes and prefixes that were collected from respondents at Lac Seul First Nation.<sup>2</sup> These 65 names and phrases identify 38 botanical taxa (Table 1) and 19 morphological characteristics of plants (Table 2). A list of the plant taxa is provided in Table 1 with Oji-Cree translations.

Table 1 also lists the synonyms encountered when respondents offered different names for the same plant. When synonyms were revealed, one name expressed an attribute of the plant and the other described a use of that plant. For example, *Cornus stolonifera* is named *paashkoaaticig* 'scraping (inner bark) for use' and *miskaabemig* 'visible (from a distance) because of its redness'; *Diervilla lonicera* is named *ozhaawaapimaaticig* 'green bark shrub' and *ozhaawaakiimiinaaticig*



TABLE 1.—Plant taxa from Lac Seul First Nation, Ontario, Canada.

Taxon <sup>1</sup>	Oji-Cree	English translation	Common English name
<i>Abies balsamea</i> (L.) Mill.	<i>shingob bigiw</i>	fir/spruce with gum	balsam fir
<i>Acer spicatum</i> Lam.	<i>zshaashaagopemaagaatig</i> (n.) <i>zshaashaagopemigoon</i> (v.)	'chewing wood (shrub)' 'chewed upon this wood has been'	mountain maple
<i>Achillea millefolium</i> L.	<i>waabigooniinzens</i>	'flower which is little'	yarrow
<i>Acorus calamus</i> L.	<i>achiitemoo azoo</i> <i>wiikensh</i>	'squirrel tail' no translation	sweet flag
<i>Alnus crispa</i> (Ait.) Pursh.	<i>moozpaagoon</i>	'(like the) hanging moose bell'	green alder
<i>Amelanchier</i> spp.	<i>zhigaagomiinen</i> <i>zhigaagomiinaatig</i>	'skunk = saskatoon berry' 'skunk = saskatoon berry wood (shrub)'	saskatoon berry
<i>Anaphalis margaritacea</i> (L.) Benth & Hook.	<i>agawaapamakiin</i>	'when it comes out in the day-light'	pearly everlasting
<i>Apocynum androsaemifolium</i> L.	<i>mahkwa ochiibig</i> <i>osheysep</i>	'bear's root' 'for twine'	spreading dogbane
<i>Aralia nudicaulis</i> L.	<i>waabooz ochiibig</i>	'rabbit's root'	wild sarsaparilla
<i>Arctostaphylos uva-ursi</i> (L.) Spreng.	<i>menozhaatig</i>	'healing wood (shrub)'	bearberry, kinnikinnik
<i>Betula papyrifera</i> Marsh.	<i>wiigwaas</i>	no translation	white birch
<i>Clintonia borealis</i> (Ait.) Raf.	<i>zhaashaagomiinaatig</i> (n.) <i>shaashgobuteh</i> (v.)	'chewable berry wood (shrub)' '(it is) going through (the body)'	blue bead lily
<i>Coptis trifolia</i> (L.) Salisb.	<i>osawa ochiibigens</i>	'yellow root little'	goldthread
<i>Cornus canadensis</i> L.	<i>zhaashaagomiinen</i>	'chewing berries'	bunchberry
<i>Cornus stolonifera</i> Michx.	<i>paashkoaatic</i> <i>miskaabemig</i>	'scraping it (bark) to use shrub' 'being red it is visible'	red osier dogwood
<i>Corylus cornuta</i> Marsh.	<i>bigaanaatic</i>	'nut wood (shrub)'	beaked hazel
<i>Diervilla lonicera</i> Mill.	<i>ozhaawaapimaatic</i> <i>ozhaawaakiimiinaatic</i> <i>wiikaasenseywin</i>	'green bark shrub' 'green innerbark berry shrub' 'being peelable'	bush honey-suckle
<i>Epilobium angustifolium</i> L.	<i>shiingibiishkag</i>	'like the fish duck' (red grebe)	fireweed
<i>Eupatorium perfoliatum</i> L.	<i>aazhaabaakesiing</i>	'(stem) going right through'	boneset



TABLE 1—(continued)

Taxon <sup>1</sup>	Oji-Cree	English translation	Common English name
<i>Fraxinus nigra</i> Marsh.	<i>aagemag</i>	no translation	black ash
<i>Gaultheria hispidula</i> (L.) Muhl.	<i>amiinaadekag</i>	'leaf/berry that smells good'	creeping snowberry
<i>Inonotus obliquus</i> (Fr.) Pil.	<i>saagaategun</i>	'in the light'	
<i>Linnaea borealis</i> L.	<i>paapiishaagakiig</i>	'(flowers) come in later in the summer'	twinflower
<i>Picea</i> spp.	<i>shingob</i>	no translation	white or black spruce
<i>Pinus</i> spp.	<i>zhingwaak</i>	no translation	red or white pine
<i>Pinus banksiana</i> Lamb.	<i>kik</i>	no translation	jack pine
<i>Populus</i> spp.	<i>azaadii</i>	no translation	trembling aspen or balsam poplar
<i>Pteridium aquilinum</i> (L.) Kuhn	<i>ginebigoon</i>	'snake place'	bracken fern
<i>Sambucus pubens</i> Michx.	<i>wiimbashkwaatig</i>	'bursts off the stem wood' (bark)	red elderberry
<i>Sorbus decora</i> (Sarg.) Schneid.	<i>mahkwaomiinaatig</i>	'bear's berry wood'	showy mountain ash
<i>Sphagnum</i> spp.	<i>waabangaamig aaki</i>	'earth white ground cover'	sphagnum or peat moss
	<i>ikwewaabangaamig</i>	'woman white ground cover'	
Class Bryidae ('true mosses')	<i>ozhaagaamig</i>	'green ground cover'	feather moss
<i>Thuja occidentalis</i> L.	<i>kiizhig</i>	no translation	eastern white cedar
<i>Usnea cavernosa</i> Tuck.	<i>miishiigan</i>	'hairy thing' (used for lichens hanging from trees)	old man's beard
<i>Vaccinium</i> spp.	<i>miin</i>	'blueberry'	blueberry
<i>Vaccinium angustifolium</i> Ait.	<i>miinens</i>	'little blueberry'	low sweet blueberry
<i>Vaccinium myrtilloides</i> Michx.	<i>michaa miin</i>	'large blueberry'	velvet leaf blueberry

<sup>1</sup> Nomenclature follows Baldwin and Sims (1989) and Gleason and Cronquist (1963).



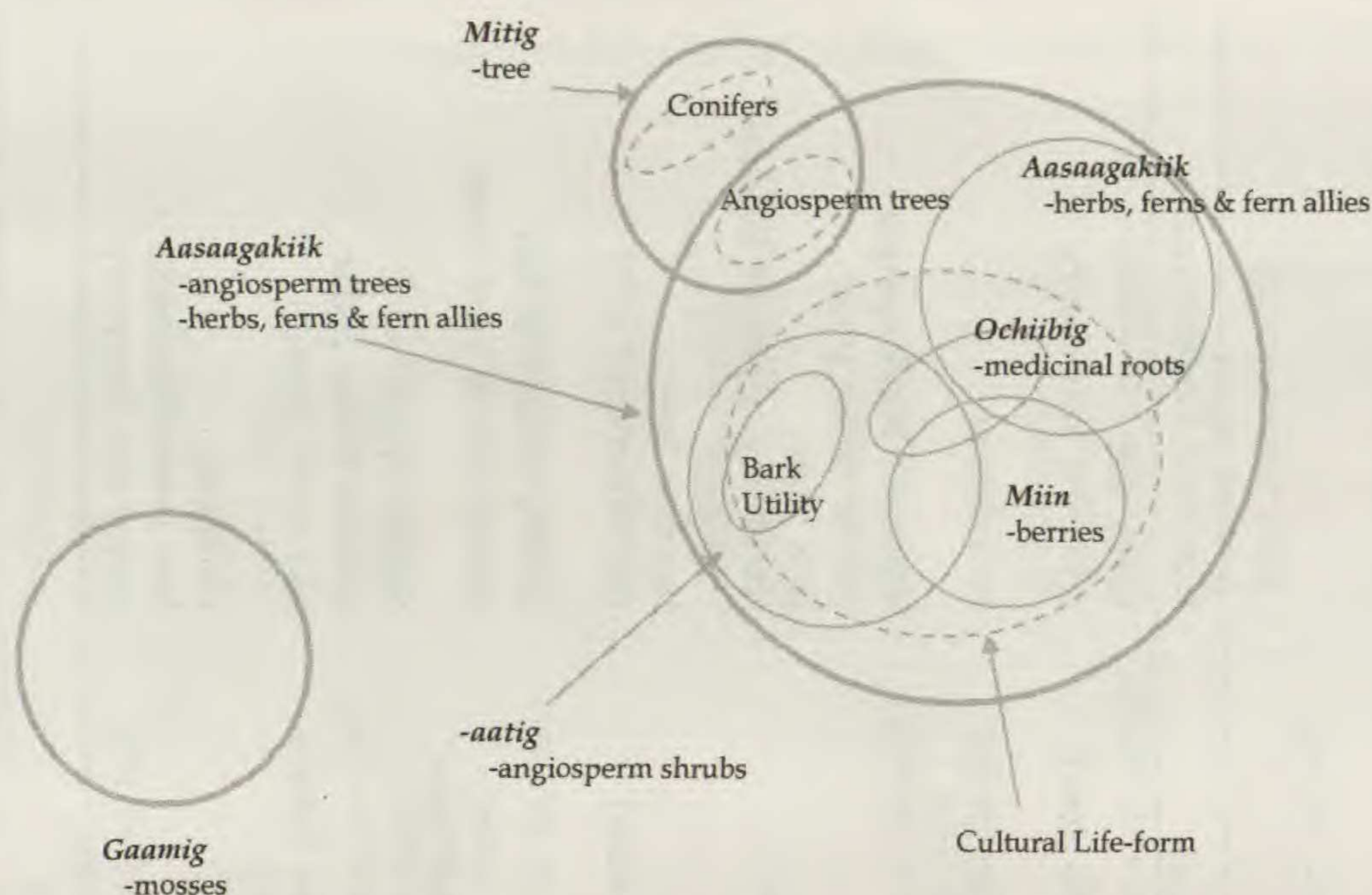


FIGURE 1.—Lac Seul life-form taxa and overlapping culturally-based groups.

'green inner bark, berry shrub'. *Apocynum androsaemifolium* is named *mahkwa ochiibig* 'bear's root'; *osheysep* 'for twine' refers to its root or stem. *Clintonia borealis* is named both *shaashgobuteh* '(it is) going through the body', which refers to its medicinal activity as a laxative, and *zhaashaagomiinaatig* 'chewable berry shrub'.

The highest ranking plant groups are represented in Figure 1. The two somewhat overlapping life-form groups which include vascular plants are *mitig* 'tree', which includes all trees, and *aasaagakiik sensu lato* (s.l., in the broad sense) which contains nonconiferous woody plants and herbs, together with ferns and fern allies. While the noun *mitig* denotes all trees, the focus of this term is primarily conifer species reflecting the composition of the boreal forest vegetation at Lac Seul (Rowe 1972). The noun *aasaagakiik* s.l. defines a large part of the domain of plants. According to one respondent, *aasaagakiik* s.l. is explained as "all things which grow up out of the ground, change and die." The deciduous conifer, *Larix laricina* (Du Roi) K. Koch, is probably excluded from this group.

Five additional life-form taxa are 'conifer', 'deciduous tree', 'shrub', 'herbaceous plant' (which includes ferns and fern allies), and 'moss'. Each of these groups is polytypic since each encompasses more restricted named taxa.

Coniferous and angiosperm trees are recognized as distinct entities by the Lac Seul people. Both types are included in the designation *mitig* 'tree', but only angiosperm trees are also included within *aasaagakiik* s.l.—angiosperms and fern allies (Figure 1). 'Conifer' may be thought of as a covert intermediate life-form taxon inferred from the vocabulary describing parts of coniferous trees (Table 2): *opii* 'conifer needle', *ozhiigoopiin* 'needled branch of conifer' (usually spruce and fir) and *bigiw* 'spruce or fir gum'. 'Deciduous tree' is also a covert intermediate life-form taxon being described by a respondent as *aasaagakiik* (i.e., separate from the conifers).

The covert life-form groups 'conifer' and 'angiosperm trees' are shown with



TABLE 2.—Morphological vocabulary describing plants in Lac Seul Oji-Cree.

English	Oji-Cree
Nouns	
berry	<i>miin</i>
leaf	<i>niibish</i>
inner bark (with sap and latex)	<i>oshiiban</i>
root	<i>ochiibig</i>
needled branches of pine	<i>ozhiigoopiin</i>
needled branches of spruce/fir	<i>bigiwoopiin</i>
gum	<i>bigiw</i>
nut	<i>bigaan</i>
flower	<i>waabigwan</i>
tree	<i>mitig</i>
plant—that grows, changes and dies (herbaceous and/or woody deciduous plant)	<i>aasaagakiik</i>
Suffixes	
wood/shrub	<i>-aatig</i>
root	<i>-ochiibig</i>
berry	<i>-omiinen</i>
conifer needle	<i>-opii</i>
moss, lichens	<i>-gaamig</i>
Prefixes	
chewing	<i>zhaashaa-</i>
yellow	<i>osaa-</i>
green	<i>ozhaa-</i>
red	<i>miska-</i>

associated genera (Figure 2). The covert 'conifer' life form contains four genera. *Shingob* contains both *Picea glauca* (Moench.) Voss and *Picea mariana* (Mill.) B.S.P. as well as *Abies balsamea*. The two undifferentiated botanical *Picea* species are an example of the botanical "type concept" for the folk genus *shingob*. *Shingob* is the type species for the genus while *shingob bigiw* is a binomial referring to the folk species 'gummy *shingob*' (*Abies balsamea*). *Zhingwak* contains both *Pinus resinosa* Ait. and *Pinus strobus* L. but excludes *Pinus banksiana*, which is called *kik*.

The covert life form 'angiosperm trees' contains four folk genera: *aagemag* (*Fraxinus nigra*), *azaadii* (*Populus* spp.), *moozpaagoon* (*Alnus crispa*), and *wiig-waas* (*Betula papyrifera*). *Azaadii* includes both *Populus balsamifera* and *Populus tremuloides*. *Alnus crispa* (*moozpaagoon*) has an intermediate stature between a tree and a shrub at Lac Seul. Since it is not modified by the "shrub" suffix *-aatig*, so it is grouped with 'angiosperm trees'.

Plants with names having the suffix *-aatig* constitute the life form 'shrub' (also translated as 'wood'), and are included in the designation *aasaagakiik* s.l. (Figure 1). We have been unable to determine if *-aatig* also refers to coniferous shrubs such as *Juniperus communis* L. and *Taxus canadensis* Marsh., which are present at Lac Seul. The names of nine folk genera, eight of which are considered shrubs, have the suffix *-aatig* (Figure 3). The eight characteristic members of the group *-aatig* are *zshaashaagopemaagaatig* (*Acer spicatum*) *zhigaagomiinaatig* (*Amelanchier* spp.), *menozhaatig* (*Arctostaphylos uva-ursi*), *paashkoaatig* (*Cornus sto-*



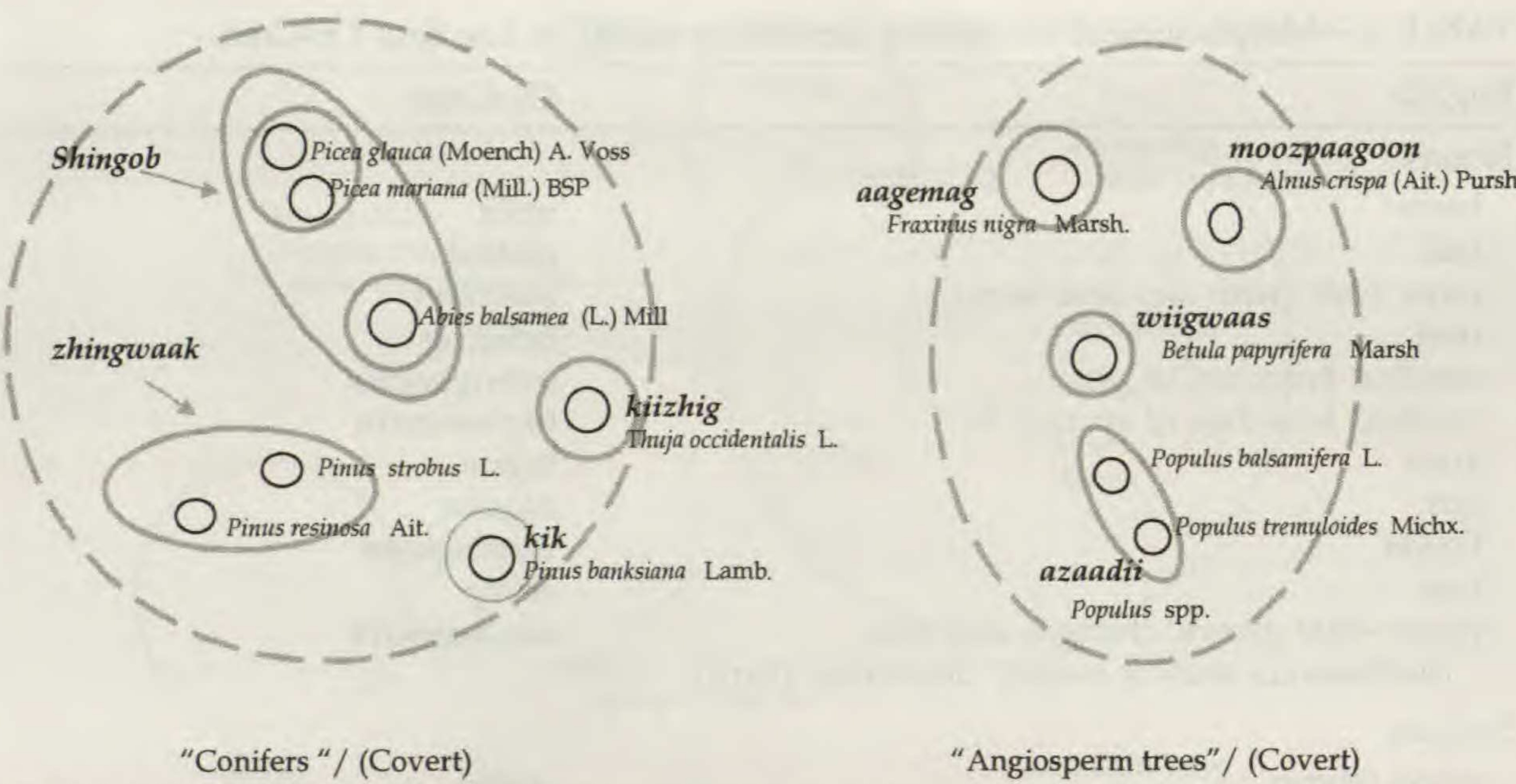


FIGURE 2.—Lac Seul covert life forms: conifers and angiosperm trees with nested folk generic and folk specific taxa.

lonifera), *bigaanaatig* (*Corylus cornuta*), *ozhaawaapimaatig* (*Diervilla lonicera*), *wiimbashkwaatig* (*Sambucus pubens*), and *mahkwaomiinaatig* (*Sorbus decora*) (see Table 1 for English translation of Oji-Cree). The name of one aberrant nonwoody folk genus also includes the *-aatig* suffix; *zhaashaagomiinaatig* (*Clintonia borealis*) is a low, herbaceous member of the Liliaceae. It has not been determined why this anomaly exists.

The life form *aasaagakiik* is polysemous, being applied at more than one taxonomic rank. Besides referring to all deciduous plants including trees when used in the broad sense, the same word is also used in a more restricted context,

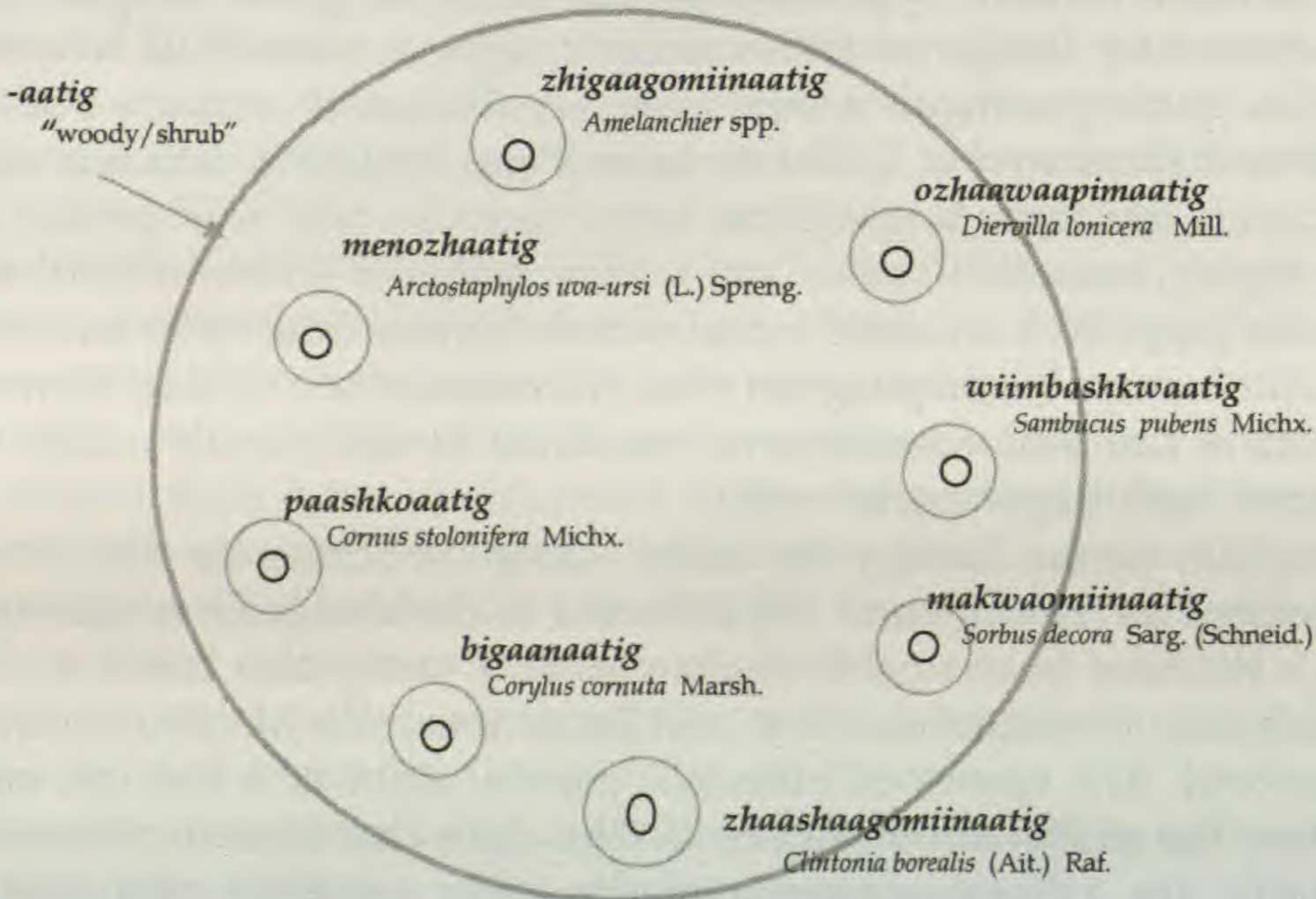


FIGURE 3.—The Lac Seul life form *-aatig*, (shrub) with nested folk generic taxa.



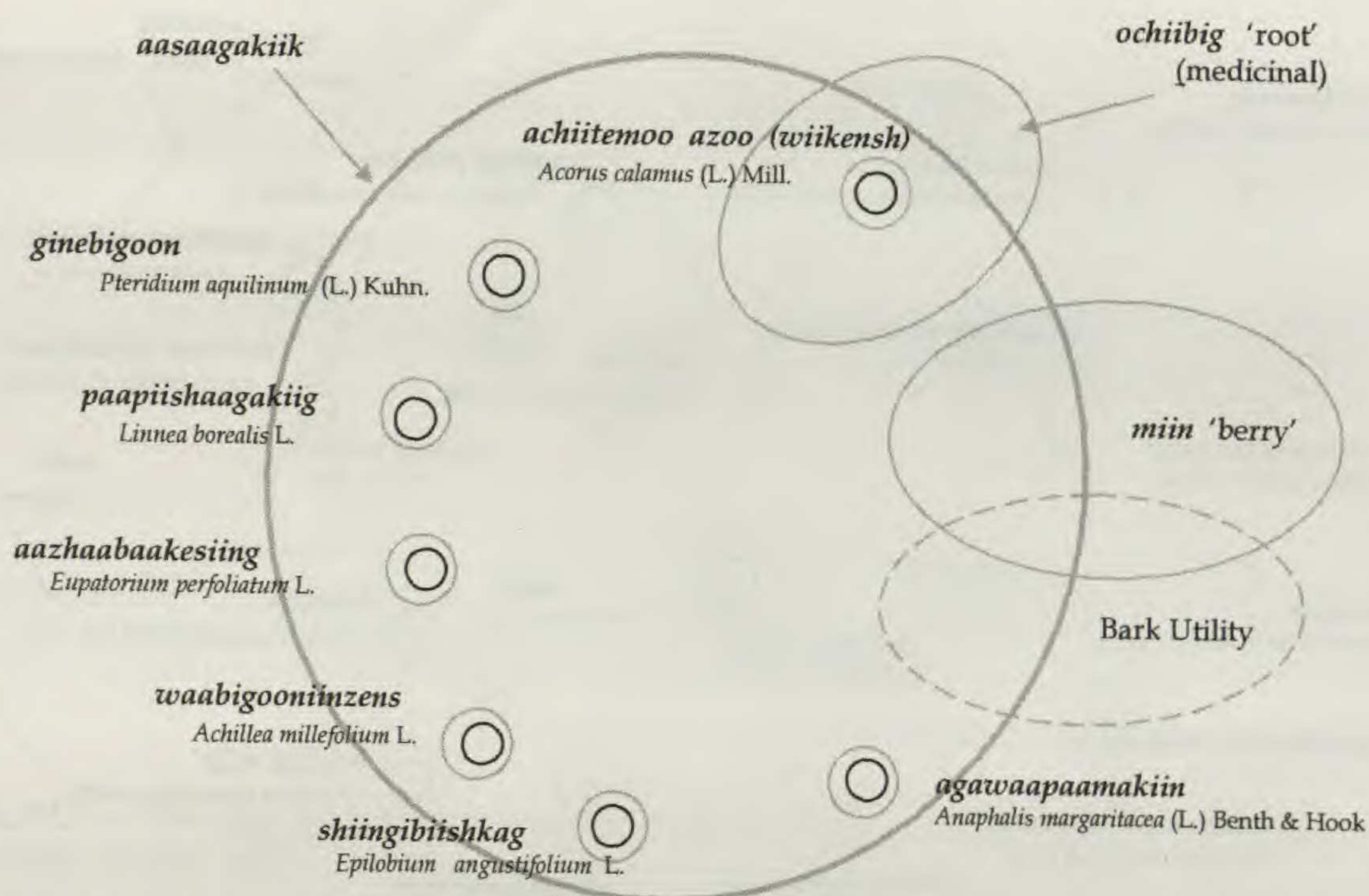


FIGURE 4.—The Lac Seul life form *aasaagakiik* s.s. (herbaceous plants, ferns and fern allies) with nested folk generic taxa and overlapping culturally-based groups *ochiibig* (medicinal root), *miin* (berry) and bark plants (covert).

*aasaagakiik sensu stricto* (s.s., in the narrow sense), to denote only nonwoody herbaceous plants, including ferns, and probably fern allies. The meaning is “things that grow, change and die.” Thirteen folk genera were identified within this life form, two of which have synonyms (Figure 4): *waabigooniinzens* (*Achillea millefolium*), *achiitemoo azoo* (syn. *wiikensh*; *Acorus calamus* (L.) Mill.), *agawaapaamakiin* (*Anaphalis margaritacea*), *mahkwa ochiibig* (syn. *osheysep*; *Apocynum androsaemifolium*), *waabooz ochiibig* (*Aralia nudicaulis*), *osawa ochiibigens* (*Coptis trifolia*), *zhaashaagomiinen* (*Cornus canadensis*), *shiingibiishkag* (*Epilobium angustifolium*), *aazhaabaakesiing* (*Eupatorium perfoliatum*), *amiinaadekag* (*Gaultheria hispidula*), *paapiishaagakiig* (*Linnaea borealis*), *ginebigoon* (*Pteridium aquilinum*), and *miin* (*Vaccinium* spp.). The folk genus *miin* contains two binomial folk specifics that correspond to botanical species: *michaa miin* (*Vaccinium myrtilloides*) and *miinens* (*Vaccinium angustifolium*).

Grasses did not emerge as a separate life form or even folk genus category. Although plants in the flowering stage were presented to the respondents whenever possible, they were included within *aasaagakiik* s.l. together with other flowering herbaceous plants.

Two additional groups identified on the basis of cultural utility are contained within *aasaagakiik* s.s., and include members of the shrub and nonwoody herbaceous plant groups. The names of these two groups reflect a useful morphological feature or medicinal value (Figure 5). The first of these groups obtains its name from the root word *miin* ‘berry’ and contains seven folk generic names encompassing shrubs and herbaceous taxa listed above. The type is the folk genus *miin* (*Vaccinium* spp.) and includes only the ‘blueberries’. The folk genera designated by *miin* are characterized by their edible berries with only one exception.



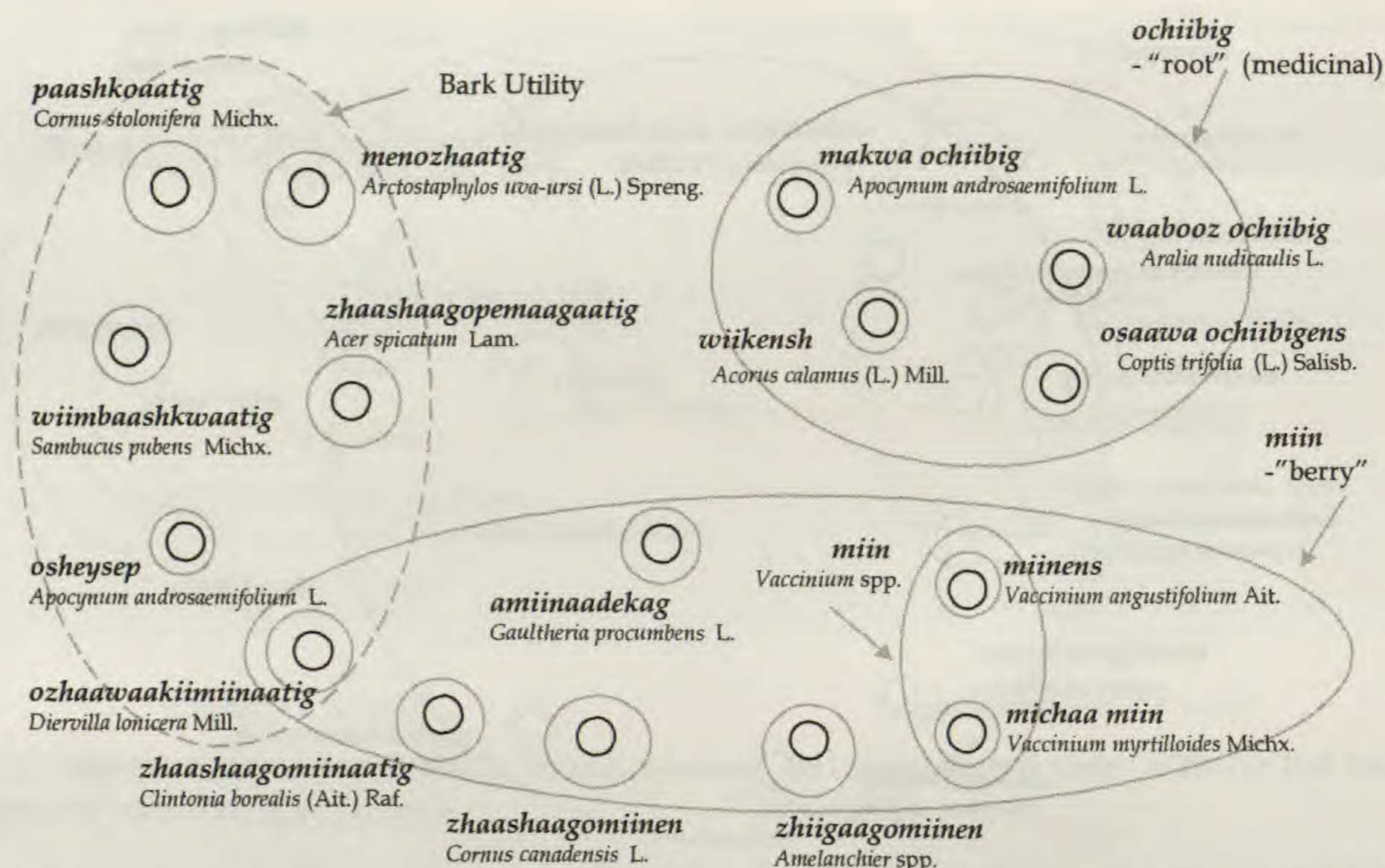


FIGURE 5.—The Lac Seul culturally-based groups *ochiibig* (medicinal root), *miin* (berry) and 'bark plants' (covert) with nested folk generic and folk specific taxa.

*Ozhaawaakiimiinaatic* (*Diervilla lonicera*) has oblong seed capsules, which are described by the word *miin* 'berry'. At Lac Seul, the word *miin* also refers to any tiny, rounded thing.

The name of the second group is derived from the base word *ochiibig* 'root' and includes herbaceous plants with medicinal roots, all in the life form *aasaa-gakiik* s.s. (Figure 5). The word 'root' is separate from the modifier (e.g., *mahkwa ochiibig* 'bear's root'). These are not food plants; but in the case of *mahkwa ochiibig* there is a synonym, *osheysep* 'twine', which labels another economic use for the species and refers to the stem of the plant. Medicinal roots are of high cultural significance.

Although neither of the synonyms (*achiitemoo azoo* and *wiikensh*) for sweet flag (*Acorus calamus*) contain the base word *ochiibig*, this taxon is also included in the 'medicinal root' grouping because it is used extensively in medicine and ceremony. *Wiikensh* is used by respondents when referring to the ceremonial and medicinal use of *Acorus calamus*. The name *achiitemoo azoo* 'squirrel tail' describes the spadix, which was used when our consultants identified fresh or pressed specimens. *Wiikensh* may represent an additional folk genus since the term is also applied to *Iris versicolor* L., which has a different medical use.

There are indications of a covert third group 'bark plant' mainly consisting of shrubs having bark used for various purposes. Although there is not a single word for this concept, there are six folk genera names related to the scraping or peeling of the bark to be used for smoking, medicine, and twine making (Figure 6). The Oji-Cree names describe how the bark is harvested or used: *zhaashaagopemaagaatic* 'chewing wood' (*Acer spicatum*); *menozhaatic* 'healing shrub' (*Arctostaphylos uva-ursi*); *paashkoaatic* 'scraping (inner bark) for use' (a synonym for



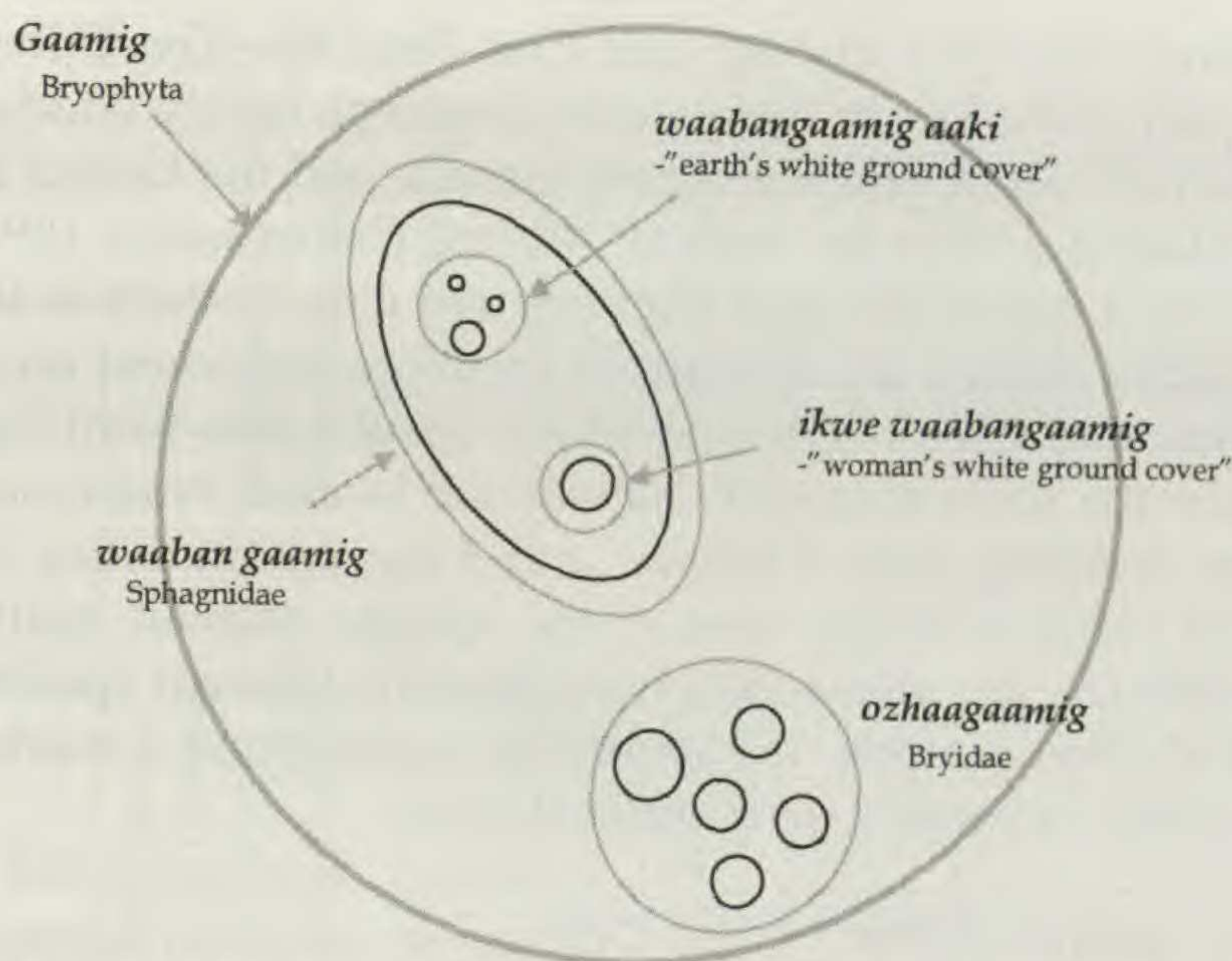


FIGURE 6.—The Lac Seul life form *gaamig* (ground cover; 'moss') with nested folk generic and folk specific taxa.

*Cornus stolonifera*); *ozhaawaakiimiinaatig* 'green inner bark shrub with a berry' (*Diervilla lonicera*)—*miin* is used to identify the capsule of this shrub; and *wiimbashkwaatig* 'bursts off the stem (when it is peeled)' (*Sambucus pubens*). The last folk genus, *osheysep*, is a robust herb (*Apocynum androsaemifolium*) whose name means "twisted for twine." This last folk genus also falls into the *ochiibig*, or 'root' group, having the synonym *mahkwa ochiibig*.

The life form *gaamig* 'moss' is mutually exclusive of the other life forms. This term means "ground cover" and includes all species of Bryophyta with a spreading unbroken growth pattern (Figure 6). We do not know if the ground lichens are included in this category. The life form *gaamig* contains two folk genera, *waabangaamig* (Sphagnidae) and *ozhaagaamig* (Bryidae). It is not known how many additional genera are recognized in this life-form group, either named or covert. Numerous unidentified *Sphagnum* spp. were grouped together by a respondent as *waabangaamig* and include two folk species, *waabangaamig aaki* 'earth white ground cover' and *ikwe waabangaamig* 'woman white ground cover'. Each of these names are trinomials.

Respondents at Lac Seul identified two additional folk genera, a lichen and a fungus, that could not be categorized under any life form. Unaffiliated genera are usually morphologically different from the genera of other life forms, and Berlin (1992:172–181) describes these as "ambiguous." The arboreal lichen, *Usnea cavernosa* is named *miishiigan*. This may actually represent a life-form taxon since all *Usnea* spp. were identified as *miishiigan*, a term which may designate all hanging arboreal lichens. The other unaffiliated genus is *saagaategan* (*Inonotus obliquus*), the clinker or cinder polypore conk, which looks like a mass of burned coal (a clinker) stuck on a birch tree. This conk is morphologically discrete from any other life form and even from any other wood decay conks which may also constitute another life form.



*Similar Plant Names in Other Ojibway and Cree Dialects.*—The Ojibway and Cree languages are part of the larger Algonquian language family which extends from the Atlantic coast of North America across Canada and the United States to Iowa, eastern North Dakota and as far west as Alberta (Ningewance 1993). A comparison of similar plant names in other Ojibway and Cree dialects is shown in Table 3. The eight species shown are ubiquitous in the boreal forest ecosystem where northern Ojibway and Cree reside and in the Great Lakes-Saint Lawrence forest ecosystem where the more southern Ojibway are located. Numerous ethnobotanical researchers working with Ojibway and Cree communities have collected names of plants along with the uses of the species without analyzing the folk taxonomies. Although the researchers used slightly different spelling systems for the Ojibway and Cree dialects, the names of plants show a marked correspondence across widely separated geographical areas.

*Aralia nudicaulis* (wild sarsaparilla) is named *waaboozojiibik* by the Great Lakes Ojibway, *wabos'odjibik* by the Ojibway in northern Minnesota and Ontario's Lake of the Woods area, *waposocipihk* by the Woods Cree of east-central Saskatchewan and *waaboozochiibig* at Lake Seul (Table 3). The consistency of these names covers a distance of several thousand kilometers. The names for *Aralia nudicaulis* are translated as "rabbit's root" in all dialects except the Minnesota/Wisconsin Ojibway (Smith 1932) where the Ojibway word may mean "rabbit woman's medicine." Smith (1932:356) gives the Pillager Ojibway name *wabo's ûskwe* and a description of women's use of it as a "remedy for blood purification during pregnancy."

*Abies balsamea* (balsam fir), is similar in the four Ojibway dialects (Table 3), with overlapping among the names and the synonyms (i.e., *shingob bigiw*, *zhin-gob bigiwaandag*, and *aninaandag*). The Lac Seul dialect leaves off the *-aandag* suffix used in the three other Ojibway dialects. This ending may correspond to the suffix *-aatig* 'woody' which people at Lac Seul use for denoting shrubs. The northern Woods Cree name seems dissimilar but there may be a remnant of similarity in *napak*.

The names for *Acer spicatum* (mountain maple) were not collected by Densmore (1928) or Leighton (1985); the species is found in Densmore's region of study but not in Leighton's. The names are similar in the three Ojibway dialects. The Lac Seul name includes the 'shrub' suffix *-aatig*. The differences in spelling are more a feature of variation in orthographic conventions than in actual pronunciation. The suffixes *-gobiimag* and *-gobi'mûk* are comparable. The "c" in *caca-* is pronounced "s" in both the Densmore (1928) and Smith (1932) phonetic pronunciation systems. *Zshaashaa-* is pronounced the way it appears.

*Betula papyrifera* (white birch) was a staple product for manufacturing containers, canoe sheathing, and *wiigwaamen* (home or lodge covered with birch bark). The names for white birch are closely related in all dialects. The Ojibway whom Densmore (1928) interviewed included the *-atig* suffix 'wood' in their dialect.

Smith's (1932) word, *ode'imîndji'bîk*, for *Cornus canadensis* (bunchberry) is the only one significantly different from the others. There may have been some confusion in Smith's data (1932) because he also has *Fragaria virginiana* Duchesne translated as *ode'imîndji'bîk* 'heart berry root'. The wild strawberry had a signif-



TABLE 3.—A comparison of plant names in other Ojibway and Cree dialects.

Lac Seul Oji-Cree	Great Lakes Ojibway <sup>1</sup>	Woods Cree Nihithawak <sup>2</sup>	Minnesota/ Wisconsin Ojibway <sup>3</sup>	Minnesota/ NW Ontario Ojibway <sup>4</sup>	Scientific binomial
<i>shingob bigiw</i>	<i>zhingob bigiwaandag</i> syn. <i>aninaandag</i>	<i>napak a(h)siht</i>	<i>jîngo'b pîkewa'ndag</i>	<i>a'ninandak'</i>	<i>Abies balsamea</i> (L.) Mill.
<i>zshaashaagopa-maa- gaatig</i>	<i>zhaashaagobiimag</i>	n/a	<i>cacagobi'mûk</i>	n/a	<i>Acer spicatum</i> Lam.
<i>waabooz ochiibig</i> <i>wiigwaas</i>	<i>waaboozojiibik</i> <i>wiigwaas</i>	<i>waposocipihk</i> <i>waskway</i>	<i>wabo's ûskwe</i> <i>wigwas</i>	<i>wabos' odji'bik</i> <i>wi'wasa'tig</i>	<i>Aralia nudicaulis</i> L. <i>Betula papyrifera</i> Marsh.
<i>zhaashaagomiinen</i> <i>miskaabemig</i>	<i>zhaashaagominens</i> <i>miskwaabiimizh</i>	<i>sasakominan</i> <i>miskwapimak</i> , syn. <i>mithkwapimak</i>	<i>ode'imîdji'bîk</i> <i>meskwabi'mic</i>	<i>caca'gomin</i> <i>miskwabi'mic</i>	<i>Cornus canadensis</i> L. <i>Cornus stolonifera</i> Michx.
<i>bigaanaatig</i> <i>azaadii</i> <i>azaadii</i>	<i>bagaanimizh</i> <i>azaadii</i> <i>azaadii</i>	<i>pakan</i> <i>mathamitos</i> <i>mitos</i>	<i>bapa'</i> <i>manasa'di</i> <i>asadi</i>	<i>bagan'</i> <i>man'asa'di</i> <i>asa'di</i>	<i>Corylus cornuta</i> Marsh. <i>Populus balsamifera</i> L. <i>Populus tremuloides</i> Michx.

<sup>1</sup> Meeker et al. 1993.<sup>2</sup> Leighton 1985.<sup>3</sup> Smith 1932.<sup>4</sup> Densmore 1928.



icant place in southern Ojibway sacred stories, and it seems unlikely informants would have confused it with bunchberry. It could, be a synonym, however (N. Turner, pers. comm.). The other four dialects contain the morpheme *miin* or *min* 'berry' and probably all translate as "chewable or edible (little) berry."

The names for *Cornus stolonifera* (red osier dogwood) show the closest etymological relationship in this group of plant names. The extraordinarily visible red color of its late-summer bark is marked in the dialects over a wide geographical area. All names include a descriptor for red: *miska*, *meskwa*, *miskwa*, and the Lac Seul name *miskaabemig* 'being red it is visible'. The shrubs are visible in the fall and winter along the lakeshore from a long distance.

*Corylus cornuta* (beaked hazel) is the only nut-producing shrub in the boreal forest regions where the Ojibway and Cree reside. *Bigaan*, *bagaan*, and *pakan* all mean "nut"; at Lac Seul the suffix *-aatig* 'shrub' is attached to the end of the word. The word "nut" implies food (Europeans adopted the word "pecan"). The names for *Corylus cornuta* refer directly to the nut, but also imply cultural use as food. The last two species, *Populus balsamifera* and *P. tremuloides*, are not differentiated by the Ojibway dialects, both being termed *azaadii*, *asadi*, and *asa'di*; but, the two are different in Woods Cree.

The observed consistency in names of certain plants over a very large geographical area where these groups of people have resided for thousands of years may be the result of three factors. The east-west trade routes brought people together for millennia prior to European contact; these later became part of the fur trade routes. People spoke the same language, if not the same dialect, and would have been able to converse with each other about plants for food and healing. In the boreal forest ecosystem of the north, many of the same species and plant associations are found over large expanses of the region and people would have been able to recognize, talk about, and use the plants in new localities.

## DISCUSSION

*Northern Ojibway Plant Classification.*—This ethnobotanical study is the first research concerning the plant classification system of a northern Oji-Cree speaking community in northwestern Ontario. While this work is only preliminary and does not cover all of the vascular plant species found in the region, the results indicate that a complex, hierarchical folk classification system does exist in the traditional culture and language of the Lac Seul Ojibway.

The plant taxonomic system of the Lac Seul people is based on the traditional perception and use of the ecosystem and mode of subsistence. The Lac Seul Ojibway and Cree lived off their traditional lands and waters in the transition zone between the Boreal and Great Lakes-Saint Lawrence forest ecosystems by harvesting the natural resources, and their plant names exhibit relational comparisons of the plants to animals and landscapes of their environment (e.g., *ginebi-goon* 'snake place' (bracken fern) and *miskaabemig* 'being red it is visible from a distance along shore (implied)' (red osier dogwood).

This study found no name for unique beginner in the kingdom Plantae at Lac Seul, which is typical of most folk taxonomies (Berlin 1992). The rank of covert kingdom Plantae is inferred from a vocabulary of botanical terms (Table 2). Some



of this vocabulary is genus specific, meaning that a word will describe the plant part of only one genus, such as *ozhiigoopiin*, which refers to the boughs of the genus *zhingwak* (*Pinus* spp.).

The plant taxonomy at Lac Seul shows a number of features that have been found in the botanical taxonomies of other hunter-gathering people (Hunn 1982; Turner 1973). While the Lac Seul ethnobotanical taxa are intrinsically hierarchical, they do not fit a perfectly hierarchical classification model nor are they mutually exclusive as in scientific botanical classification. Group overlap occurs both between and within ranks.

*Subsistence and Folk Species.*—Mode of subsistence is an important factor in how groups of people conceptually organize their biophysical world. Most ethnobotanical studies of plant classification have involved horticultural peoples in tropical or subtropical regions of the world (Berlin 1992). The prevailing theory has been that folk species are found primarily in agrarian cultures and only rarely, or in fewer numbers, in foraging or hunter-gathering groups. Foraging people usually average two percent polytypic genera (Berlin 1992:275). The Lac Seul Ojibway are also considered hunter-gatherers and the folk taxonomic data gathered so far, while preliminary, shows nine percent (3 of 34) polytypic folk genera, a value between those of horticulturalists and foragers. Lac Seul Ojibway have a history of manipulating and propagating plants for special uses (e.g., wild rice, blueberries, sweet flag, and certain other medicinal species) and these numbers may reflect that activity. The six identified folk species are all very important in traditional usage at Lac Seul.

*Utilitarian-based Taxa in Folk Taxonomies.*—Berlin (1992) does not recognize rank based on cultural utility, although he does recognize an intermediate rank based on cultural mythology of utilitarian cultivars in Tzeltal plant taxonomy. Other authors (Hunn 1982; Turner 1973, 1987, 1989; Turner et al. 1990) recognize cultural utility as a rank. Lac Seul botanical taxonomy resembles the systems of other foraging peoples in that taxa apparently have been constituted based on cultural utility. Turner (1973), in her study of the Haida, Bella Coola (Nuxalk) and Lillooet (Stl'atl'imx), Pacific Northwest people, found that the folk taxonomies of these three First Nation groups included 'root' and 'berry' life-form categories although the root category was unnamed. Root plants were either grouped together in discussions about the plant species (i.e., the genus names identify the plants by their roots) or there is a suffix which denotes the root part. In Lac Seul Oji-Cree, the base word *ochiibig* is applied to certain herbaceous plants whose roots are medicinal.

In Haida, Bella Coola, and Lillooet, the 'berry' group overlaps with the 'shrub', 'tree', and/or 'herbaceous plant' life forms (Turner 1973). In the Lac Seul system, the 'berry' grouping of plants overlaps with the 'shrub' and 'herbaceous' life forms (Figures 4 and 5). Turner et al. (1990) found that the Thompson (Nlaka'pamux), a Salishan-speaking group in British Columbia, included an economic life form of 'berry/fruit-bearing plants/bushes'. A recent study by Johnson-Gottesfeld and Hargus (1998) with the Witsuwit'en, Athapaskan-speakers in northern British Columbia, also found that life-form taxa may be partly utilitarian and not mutually exclusive.



A final life form with considerable cultural utility is 'moss'. While in many regions recognition of a moss life-form group is unusual (Atran 1985:301), at Lac Seul the mosses are conspicuous as a vegetational entity carpeting the floor of many forest stand types. The life form *gaamig* contains two folk genera, *waa-bangaamig* and *ozhaagaamig*, the former containing two folk species, and both with high utility (Figure 6). While Turner (1973) reported the 'moss' life form was named but empty in the taxonomic system of the First Nation interviewed, Johnson-Gottesfeld and Hargus (1998) found that *Sphagnum* spp. and feather moss are considered *yin* 'moss'. The prototype of the life form in this case appears to be *Sphagnum magellanicum* Brid. The Montaignaise people's concept and naming of mosses most closely parallels the situation at Lac Seul. Clément (1990) observed that the suffix *-kamuk*, referring to "plants without roots," terminates the names for various *Sphagnum* spp., caribou lichens, and some feather mosses. The name *-kamuk* also means "surface" or "crust of the earth," which is comparable to Lac Seul's references to *waabangaamig* 'white ground cover'.

## SUMMARY AND CONCLUSIONS

There has been no previous research into the folk taxonomic systems of the Oji-Cree and Cree speaking people of northwestern Ontario. The goal of this preliminary study was to record plant names and botanical vocabulary of the Oji-Cree speaking Lac Seul First Nation and determine the method of plant classification. The names of 38 folk genera and folk species were elicited with some synonyms and the words for 18 morphological characteristics, together totaling 65 botanical names or phrases. Although the data set was small, it was apparent that the folk genera correspond to morphologically based life-form categories representing a hierarchical taxonomic system for ordering the plant world.

## NOTES

<sup>1</sup> Voucher specimens are in the collection of Mary B. Kenny, Lac Seul First Nation, via Box 317, Hudson, Ontario, Canada.

<sup>2</sup> The pronunciation and spelling of Lac Seul Oji-Cree words and phrases follow the conventions of Ningewance (1993):

### Consonants

Pronounced as in English: **m**, **n**, **y**, **h**, and **w**.

Ojibway Consonants: **k**, **p**, **ch**, **t**, and **sh** are similar to English.

**g**, **b**, **j**, **d**, and **zh** are softer than English.

Aspirated (sometimes) in pronunciation: **k** (**hk**), **p** (**hp**), and **t** (**ht**).

Consonants at the end of a word are voiced: **-iw**, **-ng**, **-nd**, **-nzh**, **-tw**, **-dw**, **-shkw**, etc.

### Vowels

Short vowels: **(i)** as in **bit**

**(o)** as in **look**

**(a)** as in **cup**



Long vowels: (e) as in red

(ii) as in peek

(aa) as in 'ah'

(oo) as between boot and boat

Nasal vowel endings: -ens, -aans, -oons, -enz, -iinz, -aanz, and -oonz

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